Claims

WHAT IS CLAIMED IS:

1.   A method for installing a utility device for use in an operational environment,
wherein the utility device performs a process using a combination of a specific chemical product and
water, the method comprising:

defining a plurality of candidate chemical products that may be used in the performance of
the process;

determining a hardness level associated with the water; and

analyzing the hardness level against each of the plurality of candidate chemical products to
select therefrom the specific chemical product.

2.   A method as defined in claim 1, further comprising:

evaluating a specified consideration associated with the operational environment to render
therefrom a first parameter value indicative of results derived from examination of the specified
consideration, wherein the analyzing act analyzes both the hardness level and the first parameter
value against each of the plurality of candidate chemical products to administer the selection of the
specific chemical product.

3.   A method as defined in claim 2, wherein the first parameter value relates to an
average temperature of the water used by the process.

4.   A method as defined in claim 2, wherein the first parameter value relates to an
average level of soil that will be washed from articles by the utility device as a result of performance
of the process.

5.   A method as defined in claim 4, wherein the utility device is a warewash machine.

6.   A method as defined in claim 4, wherein the utility device is a laundry machine.

7. A method as defined in claim 2, wherein the first parameter value relates to an average time period for performance of the process.

8. A method as defined in claim 1, further comprising:

5   providing a graphical user interface on the utility device through which a field service person inputs one or more parameters associated with the operational environment, wherein the specific chemical product is one of the one or more parameters;

evaluating the one or more parameters to determine operational settings for use by the utility device in performing the process;

10 receiving through the graphical user interface an indication to activate the utility device to perform the process at the operational environment; and

in response to the indication, controlling operation of the utility device based on the operational settings determined by the evaluating act.

15 9. A method as defined in claim 8, further comprising:

displaying on the graphical user interface the operational settings determined by the evaluating act; and

presenting on the graphical user interface an electronic selection screen comprising an interface element modifying at least one of the operational settings.

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10. A method as defined in claim 9, wherein the controlling act comprises:

in response to modification of the at least one operational setting by the interface element, controlling operation of the utility device based on the modified operational setting.

25 11. A method as defined in claim 10, wherein an average level of soil that will be washed from articles by the utility device as a result of performance of the process is another one of the one or more parameters.

12. A method as defined in claim 11, wherein the utility device is a warewash machine.

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13. A method as defined in claim 11, wherein the utility device is a laundry machine.

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14.   A computer program product readable by a computer system and tangibly embodying a program of instructions executable by the computer system to perform the method of claim 8.

5   15.   A computer program product readable by a computer system and tangibly embodying a program of instructions executable by the computer system to perform the method of claim 1.

16.   In a computer system, a method for configuring a utility device to perform a service at a service environment, the method comprising:

providing a graphical user interface through which a field service person inputs one or more parameters associated with the service environment;

5   analyzing the one or more parameters to determine operational settings for use by the utility device in performing the service;

receiving through the graphical user interface an indication to activate the utility device to perform the service at the service environment; and

in response to the indication, controlling operation of the utility device based on the

10   operational settings determined by the analyzing act.

17.   A method as defined in claim 16, further comprising:

in response to detecting that a parameter has been modified, analyzing the one or more parameters in conjunction with the modified parameter to render a modified set of operational

15   settings, wherein the controlling act controls operation of the utility device based on the modified set of operational settings.

18.   A method as defined in claim 16, wherein the service performed by the utility device comprises application of a chemical solution to articles, the chemical solution being formed by

20   combining a rinse agent and a chemical product in a solution tank, the method further comprising:

receiving through the graphical user interface a first parameter relating to a soil level on the articles;

receiving through the graphical user interface a second parameter relating to a specific type of water used to form the rinse agent; and

25   receiving through the graphical user interface a third parameter identifying the chemical product.

19.   A method as defined in claim 18, the analyzing act comprising:

evaluating the first parameter, the second parameter and the third parameter to determine a

30   conductivity setpoint for the chemical solution, wherein the conductivity setpoint defines a target percent concentration of the chemical product within the chemical solution.

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20. A method as defined in claim 19, the controlling act comprising:

detecting a current conductivity of the chemical solution in the solution tank; and

dispensing a predetermined amount of the chemical product to the solution tank in response

5 to the current conductivity falling below the conductivity setpoint.

21. A method as defined in claim 20, wherein the predetermined amount of the chemical

product is an operational setting determined by analyzing the first parameter, the second parameter

and the third parameter against a data structure mapping the operational settings to a plurality of

10 parameter groupings, wherein the first parameter, the second parameter and the third parameter form ι

one of the plurality of parameter groupings.

22. A method as defined in claim 21, wherein the utility device is a warewash machine.

15 23. A method as defined in claim 21, further comprising:

displaying on the graphical user interface the conductivity setpoint determined by the

evaluating act; and

presenting on the graphical user interface an electronic selection screen comprising an

interface element for modifying the conductivity setpoint.

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24. A method as defined in claim 23, wherein the controlling act further comprises:

in response to modification of the conductivity setpoint via the interface element, controlling

operation of the utility device based on the modified conductivity setpoint.

25 25. A method as defined in claim 16, wherein the graphical user interface is presented to

the field service person on a display device coupled to computer system.

26. A method as defined in claim 16, wherein the graphical user interface is presented to

the field service person on a display device coupled to a client computer communicatively connected

30 to the computer system.

27. A method as defined in claim 16, wherein the service comprises performance of a process using a combination of a chemical product and water, the method further comprising:

defining a plurality of candidate chemical products that may be used in the performance of the process at the service environment;

5   determining a hardness level associated with the water; and

analyzing the hardness level against each of the plurality of candidate chemical products to select therefrom the chemical product, wherein the selected chemical product is one of the one or more parameters input by the field service person through the graphical user interface.

10   28. A method as defined in claim 27, further comprising:

evaluating a specified consideration to render therefrom a first parameter value indicative of results derived from examination of the specified consideration, wherein the analyzing act analyzes both the hardness level and the first parameter value against each of the plurality of candidate chemical products to administer the selection of the chemical product.

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29. A method as defined in claim 28, wherein the first parameter value relates to an average level of soil that will be washed from articles by the utility device as a result of performance of the process.

20   30. A method as defined in claim 29, wherein the utility device is a warewash machine.

31. A method as defined in claim 29, wherein the utility device is a laundry machine.

32. A computer program product readable by a computer system and tangibly embodying

25   a program of instructions executable by the computer system to perform the method of claim 27.

33. A computer program product readable by a computer system and tangibly embodying a program of instructions executable by the computer system to perform the method of claim 16.

34.　In a computer system, a method for administering control over a utility device performing a service at a service environment, the method comprising:

providing a graphical user interface through which a field service person inputs one or more parameters associated with the service environment;

5　　　analyzing the one or more parameters to determine operational settings for use by the utility device in performing the service;

receiving through the graphical user interface an indication to activate the utility device to perform the service at the service environment;

in response to the indication, controlling operation of the utility device based on the

10　operational settings determined by the analyzing act; and

in response to detecting that a parameter has been modified, analyzing the one or more parameters in conjunction with the modified parameter to render a modified set of operational settings, wherein the controlling act controls operation of the utility device based on the modified set of operational settings.

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35.　A method as defined in claim 34, wherein the service performed by the utility device comprises application of a chemical solution to articles, the chemical solution being formed by combining a rinse agent and a chemical product in a solution tank, the method further comprising:

receiving through the graphical user interface a first parameter relating to a soil level on the

20　articles;

receiving through the graphical user interface a second parameter relating to a specific type of water used to form the rinse agent; and

receiving through the graphical user interface a third parameter identifying the chemical product.

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36.　A method as defined in claim 35, wherein the analyzing act comprises:

evaluating the first parameter, the second parameter and the third parameter to determine a conductivity setpoint for the chemical solution, wherein the conductivity setpoint defines a target percent concentration of the chemical product within the chemical solution.

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37.　A method as defined in claim 36, wherein the controlling act comprises:

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detecting a current conductivity of the chemical solution in the solution tank; and

dispensing a predetermined amount of the chemical product to the solution tank in response
to the current conductivity falling below the conductivity setpoint.

5   38.   A method as defined in claim 37, wherein the utility device is a warewash machine.

         39.   A computer program product readable by a computer system and tangibly embodying
a program of instructions executable by the computer system to perform the method of claim 34.

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40.   A computer-implemented method for configuring a utility device to perform a service at a service environment, the method comprising: ╱

providing a graphical user interface through which a field service person inputs one or more parameters associated with the service environment;

5   analyzing the one or more parameters to determine a set of operational settings for use by the utility device in performing the service;

saving the set of operational settings to memory for use in controlling operation of the utility device during performance of the service;

displaying on the graphical user interface the set of operational settings determined by the

10   analyzing act;

presenting on the graphical user interface an electronic selection screen comprising an interface element for modifying at least one of the set of operational settings; and

in response to modification of an operational setting, updating the set of operational settings to include the modified operational setting.

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41.   A method as defined in claim 40, further comprising:

receiving through the graphical user interface an indication to activate the utility device to perform the service at the service environment; and

in response to the indication, controlling operation of the utility device based on the set of

20   operational settings saved to memory.

42.   A method as defined in claim 41, wherein the service performed by the utility device comprises application of a chemical solution to articles, the chemical solution being formed by combining a rinse agent and a chemical product in a solution tank, the method further comprising:

25   receiving through the graphical user interface a first parameter relating to a soil level on the articles;

receiving through the graphical user interface a second parameter relating to a specific type of water used to form the rinse agent; and

receiving through the graphical user interface a third parameter identifying the chemical

30   product, wherein the analyzing act evaluates the first parameter, the second parameter and the third

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parameter to determine a conductivity setpoint for the chemical solution, wherein the conductivity setpoint defines a target percent concentration of the chemical product within the chemical solution.

43.   A method as defined in claim 42, the controlling act comprising:

5   detecting a current conductivity of the chemical solution in the solution tank; and

dispensing a predetermined amount of the chemical product to the solution tank in response to the current conductivity falling below the conductivity setpoint.

44.   A method as defined in claim 43, wherein the predetermined amount of the chemical

10   product is an operational setting determined by analyzing the first parameter, the second parameter and the third parameter against a data structure mapping each of the set of operational settings to a plurality of parameter groupings, wherein the first parameter, the second parameter and the third parameter form one of the plurality of parameter groupings.

15   45.   A method as defined in claim 43 wherein the utility device is a warewash machine.

46.   A method as defined in claim 43, wherein the conductivity setpoint is displayed by the displaying act on the graphical user interface and the interface element is operable to modify the conductivity setpoint, the updating act comprising:

20   in response to modification of the conductivity setpoint via the interface element, updating the set of operational settings to include the modified conductivity setpoint.

47.   A method as defined in claim 46, wherein the controlling act further comprises: ·
controlling operation of the utility device based on the modified conductivity setpoint.

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48.   A method as defined in claim 40, further comprising:
determining a conductivity offset relating to an inherent conductivity of the rinse agent; and
utilizing the conductivity offset to determine a total dissolved solids parameter for the chemical solution, wherein the displaying act displays the total dissolved solids parameter on the

30   graphical user interface in conjunction with one or more operational settings related to a rinse cycle performed by the utility device to apply a rinse agent to articles during the service.

49.   A method as defined in claim 48, wherein the interface element is operable to modify the at least one of the one or more operational settings related to the rinse cycle.

5   50.   A method as defined in claim 49 wherein the utility device is a warewash machine.

51.   A computer program product readable by a computer system and tangibly embodying a program of instructions executable by the computer system to perform the method of claim 40.

10   52.   A computer program product as defined in claim 51, wherein the computer program product is a communications medium.

53.   In a computer system, a method for configuring a utility device to perform a service at a service environment, wherein the service comprises removal of soil from articles, the method comprising:

defining a plurality of candidate chemical products that may be used in the performance of

5   the service at the service environment;

determining an average level of soil that will be washed from the articles by the utility device as a result of performance of the service;

analyzing the average soil level against each of the plurality of candidate chemical products to select therefrom the chemical product,

10   providing a graphical user interface through which a field service person inputs one or more parameters associated with the service environment, wherein the selected chemical product is one of the one or more parameters input by the field service person through the graphical user interface;

evaluating the one or more parameters to determine operational settings for use by the utility device in performing the service;

15   receiving through the graphical user interface an indication to activate the utility device to perform the service at the service environment; and

in response to the indication, controlling operation of the utility device based on the operational settings determined by the analyzing act.

20   54.   A method as defined in claim 53, wherein the average soil level is another of the one or more parameters input by the field service person through the graphical user interface and analyzed by the evaluating act.

55.   A method as defined in claim 53, wherein the evaluating act comprises:

25   in response to detecting that a parameter has been modified, evaluating the one or more parameters in conjunction with the modified parameter to render a modified set of operational settings, wherein the controlling act controls operation of the utility device based on the modified set of operational settings.

30   56.   A method as defined in claim 55, wherein the utility device is a warewash machine.

57.   A computer program product readable by a computer system and tangibly embodying a program of instructions executable by the computer system to perform the method of claim 53.

58.   A computer program product as defined in claim 57, wherein the computer program
5   product is a communications medium.

59.   A method for installing a warewash machine for use in an operational environment, wherein the warewash machines performs wash cycles wherein a chemical solution is applied to articles for washing soil therefrom, the chemical solution being formed from a combination of a specific chemical product and water, the method comprising:

5   defining a plurality of candidate chemical products that may be used to form the chemical solution;

defining a plurality of test considerations associated with operation of the warewash machine within the operational environment;

evaluating the plurality of test considerations to render a determination on which of the

10   plurality of candidate chemical products is to be selected as the specific chemical product.

60.   A method as defined in claim 59, wherein one of the plurality of test considerations relates to a hardness level of the water, the evaluating act comprising:

analyzing the hardness level against each of the plurality of candidate chemical products to

15   select therefrom the specific chemical product.

61.   A method as defined in claim 60, wherein another one of the plurality of test considerations relates to an average level of soil that will be washed from the articles by the utility device during each wash cycle, the evaluating act comprising: --

20   analyzing both the average soil level and the hardness level of the water against each of the plurality of candidate chemical products to select therefrom the specific chemical product.

62.   A method as defined in claim 61, wherein another one of the plurality of test considerations relates to an average temperature of the water that will be applied to the articles by

25   the utility device during each wash cycle, the evaluating act comprising:

analyzing the average water temperature, the average soil level and the hardness level of the water against each of the plurality of candidate chemical products to select therefrom the specific chemical product.

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63.   A method as defined in claim 62, wherein another one of the plurality of test considerations relates to an average time period for the performance of each wash cycle, the evaluating act comprising:

analyzing the average time period, the average water temperature, the average soil level and

5   the hardness level of the water against each of the plurality of candidate chemical products to select therefrom the specific chemical product.

64.   A method as defined in claim 59, further comprising:

providing a graphical user interface on the utility device through which a field service person

10   inputs one or more parameters associated with the operational environment, wherein the specific chemical product is one of the one or more parameters;

analyzing the one or more parameters to determine operational settings for use by the utility device in performing the wash cycles at the operational environment;

receiving through the graphical user interface an indication to activate the utility device to

15   perform the wash cycles at the operational environment; and

in response to the indication, controlling operation of the utility device based on the operational settings determined by the analyzing act.

65.   A method as defined in claim 64, further comprising:

20   displaying on the graphical user interface the operational settings determined by the analyzing act; and

presenting on the graphical user interface an electronic selection screen comprising an interface element for modifying at least one of the operational settings.

25   66.   A method as defined in claim 65, wherein the controlling act comprises:

in response to modification of the at least one operational setting via the interface element, controlling operation of the utility device based on the modified operational setting.

67.   A computer program product readable by a computer system and tangibly embodying

30   a program of instructions executable by the computer system to perform the method of claim 59.

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